

What is Claimed:

1. A hot-fillable container formed by blow molding, said container comprising:

a neck portion;

an enclosed bottom portion; and

a body portion disposed between the neck portion and the bottom portion, the body portion including:

flex panels disposed about the circumference of the body portion, each of which includes a recessed central panel and a rim extending along a periphery of the central panel, the central panels being capable of inward deflection in response to the hot-filling process; and

a support structure field interposed between adjacent flex panels, the support structure field including a series of non-vertical ribs that abut one another along at least a portion of their lengths, at least some of the non-vertical ribs including opposing ends that terminate at the rim of an adjacent flex panel, wherein the support structure field is capable of inward deflection in response to the hot-filling process.
2. The container of claim 1, wherein the stiffness of the support fields is greater about its vertical axis than about its horizontal axis.
3. The container of claim 1, wherein each flex panel comprises opposing lateral recess walls extending between the central panel and the rim.
4. The container of claim 3, wherein a central panel hinge portion is formed in the recess walls.
5. The container of claim 1, wherein transverse hinges are defined at an interface between adjacent non-vertical ribs, the transverse hinges diminish stiffness of the support structure field about a vertical axis.

6. The container of claim 5, wherein the ribs are substantially horizontal such that the transverse hinges are horizontal.
7. The container of claim 1, wherein said flex panels are at least three flex panels disposed approximately equidistant about a circumference of the container.
8. The container of claim 1 wherein the body portion includes a circumferential label portion disposed generally above the flex panels and the support structure field.
9. The container of claim 1 wherein the maximum magnitude of inward deflection of each of the central panels is approximately the same as that of the support structure field under vacuum conditions.
10. The container of claim 1, wherein at least some of the non-vertical ribs are concave as viewed from inside the container.
11. A hot-fillable container formed by blow molding, the container comprising:
 - a) a neck portion;
 - b) an enclosed bottom portion; and
 - c) a body portion disposed between the neck portion and the bottom portion, the body portion including a flex portion comprising:
 - i) a plurality of spaced apart flex panels circumferentially disposed about the body portion, each of the plurality of flex panels including a central panel; and
 - ii) a support structure field interposed between adjacent flex panels, the support structure field including a series of non-vertical ribs that abut one another along at least a substantial portion of their lengths so as to define non-vertical hinges that are capable of facilitating radial deflection of the support structure field.
12. The container of claim 11, wherein the stiffness of the support structure field is greater about its vertical axis than about its horizontal axis, and wherein the support structure field is capable of inward deflection in response to the hot-filling process.

13. The container of claim 11, wherein each of the flex panels include a pair of opposing lateral rims extending at least along sides of the flex panel, and a pair of opposing lateral recess walls extending between the central panel and the opposing lateral rims.
14. The container of claim 13, wherein each of the flex panels further includes a top and a bottom rim that merge into the opposing lateral rims and a top and a bottom recess wall extending between the central panel and the top and the bottom rim.
15. The container of claim 14, wherein the rims and recess walls are continuous around the perimeter of the central panel.
16. The container of claim 13, wherein each of the opposing lateral rims merge with at least some of the non-vertical ribs.
17. The container of claim 11, wherein at least some of the series of non-vertical ribs are concave as viewed from inside the container.
18. The container of claim 11, wherein a maximum magnitude of radially inward deflection of each of the central panels is approximately the same as that of the support structure field in response to a container negative internal pressure.
19. The container of claim 11, comprising three flex panels and three support structure fields.
20. A hot-fillable container formed by blow molding, the container comprising:
 - a) a neck portion;
 - b) an enclosed bottom portion; and
 - c) a body portion disposed between the neck portion and the bottom portion, the body portion including a flex portion comprising:
 - i) a plurality of spaced apart flex panels circumferentially disposed about the body portion, each of the plurality of flex panels including a central panel;

ii) a plurality of spaced apart ribbed regions circumferentially disposed about the body portion, each one of the plurality of ribbed regions interposed between adjacent flex panels and including a series of flex ribs;

wherein the maximum magnitude of radially inward deflection of each of the central panels is substantially equivalent to the maximum magnitude of radially inward deflection of each of the ribbed regions in response to a pressure differential of about 5 psi between an exterior and an interior of the container.

21. The container of claim 20, wherein each one of the ribs in the series of flex ribs is oriented in a non-absolute vertical orientation.

22. The container of claim 20, wherein each one of the ribs in the series of flex ribs is concave as viewed from inside the container.

23. The container of claim 20, wherein the flex ribs abut one another.

24. The container of claim 20, wherein a rim extends continuously around the perimeter of each of the central panels.

25. The container of claim 24, wherein opposing ends of the flex ribs that terminate at an adjacent rim.